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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,272	07/11/2001	Yasuhiro Mouri	110092	8345

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EXAMINER

BEACHAM, CHRISTOPHER R

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 03/28/2003

0

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,272

Applicant(s)

MOURI ET AL.

Examiner

Christopher R. Beacham

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Jabbari (US 5,557,490).

4. Regarding claim 1, Jabbari shows a pivot assembly 114 for a magnetic disk storage comprising:

a fixed shaft 116;

a pair of ball bearings 118, 120, mounted thereon to support an actuator block 104, characterized in that said ball bearings 118, 120, are fitted directly into an axial bore 110 of said actuator block 104 (col. 3, lines 16-34; Figure 4B).

5. Regarding claim 2, Jabbari shows a pivot assembly 114 for a magnetic disk storage comprising:

a fixed shaft 116;

a pair of ball bearings 118, 120, mounted thereon to support an actuator block 104, characterized in that said ball bearings 118, 120, is provided with an outer ring 124

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having a thickness increased by the thickness of a sleeve 112 conventionally interposed between a pair of ball bearings 118, 120, and an actuator block 104, and said pair of ball bearings 118, 120, are fitted directly into an axial bore of said actuator block 104 (col. 3, lines 16-34; Figure 4B).

6. Regarding claims 3 and 5, Jabbari shows a spacer 128 is interposed between said pair of ball bearings 118, 120 (Figure 3).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4, 6 and ~~7~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over Jabbari (US 5,557,490) as applied to claims 1 and 2 above, and further in view of Takahashi et al. (hereafter Takahashi) (US 4,984,115).

9. Regarding claims 4, 6 and ~~7~~, Jabbari discloses all the features except each pair of ball bearings having an extension formed on one side of an outer ring thereof, and said pair of ball bearings being mounted onto said fixed shaft with said extensions abutted against each other.

Takahashi shows a pair of ball bearings 15c, 16c, having an extension formed on one side of an outer ring 15a' thereof, and said pair of ball bearings 15c, 16c are

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mounted onto said fixed shaft 7 with said extensions abutted against each other (Figure 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide pivot assembly of Jabbari with a pair of ball bearings having an extension formed on one side of an outer ring thereof, and said pair of ball bearings being mounted onto said fixed shaft with said extensions abutted against each other as taught by Takahashi.

The rationale is as follows: One of ordinary skill in the art at the time of the invention would have been motivated to provide the pivot assembly of Jabbari with a pair of ball bearings having an extension formed on one side of an outer ring thereof, and said pair of ball bearings being mounted onto said fixed shaft with said extensions abutted against each other as taught by Takahashi in order to dispose of the spacer between the outer rings of the bearing set (Takahashi; col. 6, lines 12-16) so that the radial rigidity of the bearing set can be increased.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Makino et al. (US 5,301,078) is cited to show a magnetic disk unit and manufacturing method of a carriage structure thereof.
- b. Koriyama (US 5,805,385) is cited to show a magnetic disk drive.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Beacham whose telephone number is (703) 605-4256. The examiner can normally be reached on M-F, 8: 00 am-5: 30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



Christopher R. Beacham
Patent Examiner
Art Unit 2653
March 21, 2003



WILLIAM KORZUCH
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